

CLAIMS

1. A serine protease inhibitor containing a substance capable of inhibiting the reaction of a serine protease with a substrate thereof by binding itself to said substrate of serine protease in competition with said serine protease.

2. A serine protease inhibitor according to claim 1, wherein said substance which is capable of inhibiting the reaction of a serine protease with a substrate thereof by binding itself to said substrate of serine protease in competition with said serine protease is a substance which does not have a serine protease activity and possessing a structure similar to the structure of said serine protease.

3. A serine protease inhibitor according to claim 1 or claim 2, wherein said substance which is capable of inhibiting the reaction of a serine protease with a substrate thereof by binding itself to said substrate of serine protease in competition with said serine protease is a substance obtained by having at least one amino acids of said serine protease substituted, added, or deleted by genetic engineering.

4. A serine protease inhibitor according to claim 1 or claim 2, wherein said substance which is capable of inhibiting the reaction of a serine protease with a substrate thereof by binding itself to said substrate of serine protease in competition with said serine protease is an anhydridized serine protease.

5. A serine protease inhibitor according to claim 4, wherein said anhydridized serine protease is at least one member selected from the group consisting of anhydridized activating blood coagulating factor II, anhydridized activating blood coagulating factor VII, anhydridized activating blood coagulating factor IX, and anhydridized activating blood coagulating factor X.

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6. A serine protease inhibitor according to claim 4 or claim 5, wherein the site of anhydridization of said anhydridized serine protease is made solely of an active serine residue.

5 7. A serine [protease inhibitor according to any of claims 4 - 6, wherein said anhydridized serine protease is obtained by a method which includes

(1) a step of inducing reaction of the active serine residue site of a serine protease with an inhibitor,

10 (2) a step of performing an alkali treatment, and

(3) a step of performing collection,

executes said steps sequentially in the order mentioned, and carries out at least said step of performing collection with permitting coexistence of at least one compound selected from

15 the group consisting of polyhydric alcohols and saccharides.

8. A serine protease inhibitor according to claim 7, wherein said step of performing said alkali treatment is carried out at a pH value in the range of 11.0 - 13.5.

9. A serine protease inhibitor according to any of claims 20 1 - 4, which contains at least 2 type of said substance which is capable of inhibiting the reaction of a serine protease with a substrate thereof by binding itself to said substrate of serine protease in competition with said serine protease.

10. An antithrombotic containing a serine protease inhibitor set forth in any of claims 1 - 9.

11. An antifibrinolytic containing a serine protease inhibitor set forth in any of claims 1 - 9.

12. An agent for resisting a digestive enzyme, containing a serine protease inhibitor set forth in any of claims 1 - 9.

13. An agent for curing disseminated intravascular coagulation, containing a serine protease inhibitor set forth

in any of claims 1 - 9.

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